

Index

A

[abbreviated electron configuration](#)
 8.4: Organization of Electrons in Atoms
[acid](#)
 3.6: Acids
 4.6: Neutralization Reactions
 12.5: Strong and Weak Acids and Bases and their Salts
 12.7: The pH Scale
 16.5: Other Oxygen-Containing Functional Groups
[acid dissociation constant](#)
 13.6: Some Special Types of Equilibria
[acid salt](#)
 12.5: Strong and Weak Acids and Bases and their Salts
[acids](#)
 3.6: Acids
[activity series](#)
 4.3: Types of Chemical Reactions - Single and Double Replacement Reactions
[Actual Yields](#)
 5.6: Yields
[addition polymers](#)
 16.7: Polymers
[addition reaction](#)
 16.2: Hydrocarbons
[adhesion](#)
 10.4: Properties of Liquids
[alcohol](#)
 16.4: Alkyl Halides and Alcohols
[alcohol functional group](#)
 16.4: Alkyl Halides and Alcohols
[aldehyde](#)
 16.5: Other Oxygen-Containing Functional Groups
[Aliphatic hydrocarbons](#)
 16.2: Hydrocarbons
[alkaline battery](#)
 14.4: Applications of Redox Reactions - Voltaic Cells
[alkanes](#)
 16.2: Hydrocarbons
[alkenes](#)
 16.2: Hydrocarbons
[alkyl halides](#)
 16.4: Alkyl Halides and Alcohols
[alkynes](#)
 16.2: Hydrocarbons
[alpha particle](#)
 15.2: Radioactivity
[amide](#)
 16.6: Other Functional Groups
[amine](#)
 16.6: Other Functional Groups
[amorphous solid](#)
 10.5: Solids
[amphiprotic](#)
 12.3: Brønsted-Lowry Acids and Bases
[analyte](#)
 12.4: Acid-Base Titrations
[angular momentum quantum number](#)
 8.3: Quantum Numbers for Electrons
[angular momentum quantum number\(](#)
 8.3: Quantum Numbers for Electrons

[anions](#)
 3.5: Ions and Ionic Compounds
 9.2: Lewis Electron Dot Diagrams
 9.3: Electron Transfer - Ionic Bonds
[aromatic](#)
 16.2: Hydrocarbons
[aromatic hydrocarbons](#)
 16.2: Hydrocarbons
[Arrhenius acid](#)
 12.2: Arrhenius Acids and Bases
[Arrhenius base](#)
 12.2: Arrhenius Acids and Bases
[Arrhenius definition](#)
 4.6: Neutralization Reactions
[atmosphere](#)
 6.3: Pressure
[atomic bomb](#)
 15.6: Nuclear Energy
[atomic mass](#)
 3.4: Masses of Atoms and Molecules
[atomic mass unit](#)
 3.4: Masses of Atoms and Molecules
 5.3: The Mole
[atomic mass units](#)
 5.3: The Mole
[atomic radius](#)
 8.6: Periodic Trends
[atomic theory](#)
 3.2: Atomic Theory
[atoms](#)
 3.2: Atomic Theory
[autoionization](#)
 12.6: Autoionization of Water
[autoionization constant of water](#)
 12.6: Autoionization of Water
[autoionization of water](#)
 12.6: Autoionization of Water
 13.6: Some Special Types of Equilibria
[Avogadro's law](#)
 6.5: Other Gas Laws
[avogadros number](#)
 5.3: The Mole

B

[balanced](#)
 4.2: The Chemical Equation
[balanced chemical equation](#)
 5.5: Mole-Mass and Mass-Mass Calculations
[base](#)
 4.6: Neutralization Reactions
 12.5: Strong and Weak Acids and Bases and their Salts
 12.7: The pH Scale
[Batteries](#)
 14.4: Applications of Redox Reactions - Voltaic Cells
[becquerel \(unit\)](#)
 15.4: Units of Radioactivity
[beta particle](#)
 15.2: Radioactivity
[boiling](#)
 10.3: Phase Transitions - Melting, Boiling, and Subliming

[boiling point](#)
 10.3: Phase Transitions - Melting, Boiling, and Subliming
 11.6: Colligative Properties of Solutions
[boiling point elevation](#)
 11.6: Colligative Properties of Solutions
[boiling point elevation constant](#)
 11.6: Colligative Properties of Solutions
[bond](#)
 9.5: Other Aspects of Covalent Bonds
[bond energy](#)
 9.5: Other Aspects of Covalent Bonds
[bonding electron pair](#)
 9.4: Covalent Bonds
[Boyle's law](#)
 6.4: Gas Laws
[branched hydrocarbon](#)
 16.3: Branched Hydrocarbons
[buffer](#)
 12.8: Buffers
[buffer capacity](#)
 12.8: Buffers

C

[calorimeter](#)
 7.4: Enthalpy and Chemical Reactions
[calorimetry](#)
 7.4: Enthalpy and Chemical Reactions
[capacity](#)
 12.8: Buffers
[capillary action](#)
 10.4: Properties of Liquids
[capillary rise](#)
 10.4: Properties of Liquids
[carbonyl](#)
 16.5: Other Oxygen-Containing Functional Groups
[carbonyl group](#)
 16.5: Other Oxygen-Containing Functional Groups
[carboxylate anion](#)
 16.5: Other Oxygen-Containing Functional Groups
[carboxylic acids](#)
 16.5: Other Oxygen-Containing Functional Groups
[catalyst](#)
 13.4: Shifting Equilibria - Le Chatelier's Principle
[cathode](#)
 14.4: Applications of Redox Reactions - Voltaic Cells
[cations](#)
 3.5: Ions and Ionic Compounds
 9.2: Lewis Electron Dot Diagrams
[central atom](#)
 9.4: Covalent Bonds
[chain reaction](#)
 15.6: Nuclear Energy
[Charles's law](#)
 6.4: Gas Laws
[chemical change](#)
 1.2: Basic Definitions
[chemical elements](#)
 8.5: Electronic Structure and the Periodic Table

chemical equation

- 4.2: The Chemical Equation
- 5.4: The Mole in Chemical Reactions
- 5.5: Mole-Mass and Mass-Mass Calculations

chemical equations

- 7.6: Hess's Law

chemical equilibria

- 13.6: Some Special Types of Equilibria

chemical equilibrium

- 13.2: Chemical Equilibrium

Chemical Properties

- 1.2: Basic Definitions

chemical reaction

- 12.2: Arrhenius Acids and Bases
- 13.3: The Equilibrium Constant

chemical reactions

- 4.4: Ionic Equations - A Closer Look
- 5.4: The Mole in Chemical Reactions
- 7.4: Enthalpy and Chemical Reactions

coefficient

- 4.2: The Chemical Equation

cohesion

- 10.4: Properties of Liquids

colligative

- 11.6: Colligative Properties of Solutions

colligative properties

- 11.6: Colligative Properties of Solutions
- 11.7: Colligative Properties of Ionic Solutes

combined gas law

- 6.5: Other Gas Laws

Combustion Reaction

4.5: Composition, Decomposition, and Combustion Reactions

combustion reactions

4.5: Composition, Decomposition, and Combustion Reactions

complete ionic equation

- 4.4: Ionic Equations - A Closer Look

composition

4.5: Composition, Decomposition, and Combustion Reactions

composition reaction

4.5: Composition, Decomposition, and Combustion Reactions

compound

- 1.2: Basic Definitions

concentrated

- 11.2: Definitions

concentration

- 11.2: Definitions
- 11.4: Dilutions and Concentrations
- 11.5: Concentrations as Conversion Factors

concentration units

- 11.5: Concentrations as Conversion Factors

condensation

10.3: Phase Transitions - Melting, Boiling, and Subliming

Condensed Structural Formula

- 16.2: Hydrocarbons

constant pressure

- 6.4: Gas Laws

continuous spectrum

- 8.3: Quantum Numbers for Electrons

conversion factor

- 2.5: Converting Units
- 2.6: Other Units - Temperature and Density
- 5.3: The Mole

conversion factors

- 2.6: Other Units - Temperature and Density
- 5.4: The Mole in Chemical Reactions
- 11.5: Concentrations as Conversion Factors

covalent bond

- 9.4: Covalent Bonds
- 9.5: Other Aspects of Covalent Bonds

crystalline solid

- 10.5: Solids

curie (unit)

- 15.4: Units of Radioactivity

D

d block

- 8.5: Electronic Structure and the Periodic Table

Dalton

- 6.7: Gas Mixtures

Dalton's law

- 6.7: Gas Mixtures

Dalton's law of partial pressures

- 6.7: Gas Mixtures

daughter isotope

- 15.2: Radioactivity

Decay

- 15.3: Half-Life

decay radioactively

- 15.3: Half-Life

decomposition

4.5: Composition, Decomposition, and Combustion Reactions

Decomposition reaction

4.5: Composition, Decomposition, and Combustion Reactions

density

- 2.6: Other Units - Temperature and Density
- 6.6: The Ideal Gas Law and Some Applications

deoxyribonucleic acid

- 16.7: Polymers

deposition

10.3: Phase Transitions - Melting, Boiling, and Subliming

Dilute

- 11.2: Definitions

dilution

- 11.4: Dilutions and Concentrations

dilution equation

- 11.4: Dilutions and Concentrations

Dimensional Analysis

- 2.5: Converting Units

dispersion force

- 10.2: Intermolecular Forces

dispersion forces

- 10.2: Intermolecular Forces

dissociate

- 4.4: Ionic Equations - A Closer Look

dissociation

- 4.4: Ionic Equations - A Closer Look

Dissociation Constants

- 13.6: Some Special Types of Equilibria

DNA

- 16.7: Polymers

dot diagram

- 9.2: Lewis Electron Dot Diagrams

double bond

- 9.4: Covalent Bonds

dry cell

14.4: Applications of Redox Reactions - Voltaic Cells

dynamic

- 12.3: Brønsted-Lowry Acids and Bases

dynamic equilibrium

- 10.4: Properties of Liquids

dynamic process

- 13.2: Chemical Equilibrium

E

electrodes

14.4: Applications of Redox Reactions - Voltaic Cells

electrolysis

- 14.5: Electrolysis

electrolytic cell

- 14.5: Electrolysis

electromagnetic radiation

- 8.2: Light

electromagnetic spectrum

- 8.2: Light

electron

- 3.2: Atomic Theory

electron affinity

- 8.6: Periodic Trends

electron configurations

- 8.5: Electronic Structure and the Periodic Table

electron dot diagram

- 9.2: Lewis Electron Dot Diagrams

electron group geometry

- 9.7: Molecular Shapes

electron groups

- 9.7: Molecular Shapes

electronegativity

- 9.5: Other Aspects of Covalent Bonds

electronic configuration

- 8.4: Organization of Electrons in Atoms

electronic structure

- 8.5: Electronic Structure and the Periodic Table

electrons

- 8.3: Quantum Numbers for Electrons
- 8.4: Organization of Electrons in Atoms

element

- 1.2: Basic Definitions

endothermic

- 7.4: Enthalpy and Chemical Reactions

energy

- 7.2: Energy

energy change

10.3: Phase Transitions - Melting, Boiling, and Subliming

enthalpy

- 7.4: Enthalpy and Chemical Reactions
- 7.6: Hess's Law
- 7.7: Formation Reactions

enthalpy change

- 7.4: Enthalpy and Chemical Reactions

enthalpy changes

- 7.6: Hess's Law

enthalpy of fusion

10.3: Phase Transitions - Melting, Boiling, and Subliming

enthalpy of reaction

- 7.7: Formation Reactions

enthalpy of sublimation

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

enthalpy of vaporization

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

equilibrium

[12.3: Brønsted-Lowry Acids and Bases](#)

[13.4: Shifting Equilibria - Le Chatelier's Principle](#)

equilibrium concentrations

[13.5: Calculating Equilibrium Constant Values](#)

equilibrium constant

[13.3: The Equilibrium Constant](#)

equilibrium constant expression

[13.3: The Equilibrium Constant](#)

equivalence point

[12.4: Acid-Base Titrations](#)

ester

[16.5: Other Oxygen-Containing Functional Groups](#)

ether

[16.5: Other Oxygen-Containing Functional Groups](#)

evaporation

[10.4: Properties of Liquids](#)

exact number

[2.5: Converting Units](#)

exothermic

[7.4: Enthalpy and Chemical Reactions](#)

expanded valence shell molecules

[9.6: Violations of the Octet Rule](#)

Exponential Notation

[2.2: Expressing Numbers](#)

F

f block

[8.5: Electronic Structure and the Periodic Table](#)

First Ionization Energy

[8.6: Periodic Trends](#)

fission

[15.2: Radioactivity](#)

[15.6: Nuclear Energy](#)

formation reaction

[7.7: Formation Reactions](#)

freezing point depression

[11.6: Colligative Properties of Solutions](#)

freezing point depression constant

[11.6: Colligative Properties of Solutions](#)

frequency

[8.2: Light](#)

functional group

[16.4: Alkyl Halides and Alcohols](#)

fusion

[15.6: Nuclear Energy](#)

G

galvanic cell

[14.4: Applications of Redox Reactions - Voltaic Cells](#)

gamma rays

[15.2: Radioactivity](#)

gas

[6.2: Kinetic Theory of Gases](#)

[6.4: Gas Laws](#)

gas law

[6.4: Gas Laws](#)

[6.5: Other Gas Laws](#)

gas laws

[6.4: Gas Laws](#)

[6.5: Other Gas Laws](#)

gases

[6.2: Kinetic Theory of Gases](#)

Geiger counter

[15.4: Units of Radioactivity](#)

geometry

[9.7: Molecular Shapes](#)

gimli flier

[2.5: Converting Units](#)

H

half cell

[14.4: Applications of Redox Reactions - Voltaic Cells](#)

half life

[15.3: Half-Life](#)

Half Reaction

[14.3: Balancing Redox Reactions](#)

[14.4: Applications of Redox Reactions - Voltaic Cells](#)

half reaction method

[14.3: Balancing Redox Reactions](#)

Half Reactions

[14.4: Applications of Redox Reactions - Voltaic Cells](#)

heat

[7.3: Work and Heat](#)

heat of fusion

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

Hess's Law

[7.6: Hess's Law](#)

[7.7: Formation Reactions](#)

heterogeneous equilibrium

[13.3: The Equilibrium Constant](#)

heterogeneous mixture

[1.2: Basic Definitions](#)

homogeneous mixture

[1.2: Basic Definitions](#)

hydrocarbons

[16.2: Hydrocarbons](#)

hydrogen bonding

[10.2: Intermolecular Forces](#)

hydrogenation reaction

[16.2: Hydrocarbons](#)

hydrolysis

[12.3: Brønsted-Lowry Acids and Bases](#)

hydronium ion

[12.2: Arrhenius Acids and Bases](#)

hypothesis

[1.3: Chemistry as a Science](#)

I

ideal gas

[6.2: Kinetic Theory of Gases](#)

ideal gas law

[6.6: The Ideal Gas Law and Some Applications](#)

indicator

[12.4: Acid-Base Titrations](#)

intermolecular forces

[10.2: Intermolecular Forces](#)

ionic

[9.5: Other Aspects of Covalent Bonds](#)

ionic bond

[9.3: Electron Transfer - Ionic Bonds](#)

ionic compound

[3.5: Ions and Ionic Compounds](#)

ionic compounds

[3.5: Ions and Ionic Compounds](#)

[4.4: Ionic Equations - A Closer Look](#)

Ionic Equations

[4.4: Ionic Equations - A Closer Look](#)

Ionic Formulas

[3.5: Ions and Ionic Compounds](#)

ionic solutes

[11.7: Colligative Properties of Ionic Solutes](#)

ionization energy

[8.6: Periodic Trends](#)

Ionizing radiation

[15.2: Radioactivity](#)

ions

[3.5: Ions and Ionic Compounds](#)

Irradiation

[15.5: Uses of Radioactive Isotopes](#)

isolated system

[7.2: Energy](#)

isothermal

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

isothermal process

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

IUPAC

[16.3: Branched Hydrocarbons](#)

J

Joule

[7.2: Energy](#)

K

Ka

[13.6: Some Special Types of Equilibria](#)

Keq

[13.3: The Equilibrium Constant](#)

[13.4: Shifting Equilibria - Le Chatelier's Principle](#)

ketone

[16.5: Other Oxygen-Containing Functional Groups](#)

kinetic theory

[6.2: Kinetic Theory of Gases](#)

kinetic theory of gases

[6.2: Kinetic Theory of Gases](#)

Kp

[13.3: The Equilibrium Constant](#)

Kw

[12.6: Autoionization of Water](#)

L

law of conservation of energy

[7.2: Energy](#)

law of conservation of matter

[4.2: The Chemical Equation](#)

Law of Mass Action

[13.3: The Equilibrium Constant](#)

Le Châtelier's principle

[13.4: Shifting Equilibria - Le Chatelier's Principle](#)

Le Chatelier's principle

[13.4: Shifting Equilibria - Le Chatelier's Principle](#)

Lewis electron dot diagram

[9.2: Lewis Electron Dot Diagrams](#)

Lewis electron dot diagrams

[9.4: Covalent Bonds](#)

light

[8.2: Light](#)

limiting reagent

[5.7: Limiting Reagents](#)

Limiting Reagents

[5.7: Limiting Reagents](#)

lone pair electrons

[9.4: Covalent Bonds](#)

M

magnetic quantum number

[8.3: Quantum Numbers for Electrons](#)

mass

[3.4: Masses of Atoms and Molecules](#)

[5.3: The Mole](#)

mass percentage

[11.3: Quantitative Units of Concentration](#)

matter

[1.2: Basic Definitions](#)

[3.2: Atomic Theory](#)

measurements

[2.1: Prelude to Measurements](#)

melting

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

melting point

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

[11.6: Colligative Properties of Solutions](#)

meniscus

[10.4: Properties of Liquids](#)

metal

[1.2: Basic Definitions](#)

metallic solid

[10.5: Solids](#)

millimeters of mercury

[6.3: Pressure](#)

mixtures

[1.2: Basic Definitions](#)

mol

[5.4: The Mole in Chemical Reactions](#)

molality

[11.3: Quantitative Units of Concentration](#)

molar masses

[5.3: The Mole](#)

molar volumes

[6.6: The Ideal Gas Law and Some Applications](#)

molarity

[11.3: Quantitative Units of Concentration](#)

[11.4: Dilutions and Concentrations](#)

mole

[5.3: The Mole](#)

[5.4: The Mole in Chemical Reactions](#)

mole fraction

[11.6: Colligative Properties of Solutions](#)

[11.7: Colligative Properties of Ionic Solutes](#)

molecular mass

[3.4: Masses of Atoms and Molecules](#)

Molecular Shapes

[9.7: Molecular Shapes](#)

molecular solid

[10.5: Solids](#)

molecule

[3.3: Molecules and Chemical Nomenclature](#)

molecules

[3.3: Molecules and Chemical Nomenclature](#)

[3.4: Masses of Atoms and Molecules](#)

moles of solute

[11.4: Dilutions and Concentrations](#)

monomer

[16.7: Polymers](#)

N

neutralization reaction

[4.6: Neutralization Reactions](#)

[12.2: Arrhenius Acids and Bases](#)

neutron

[3.2: Atomic Theory](#)

nomenclature

[3.3: Molecules and Chemical Nomenclature](#)

[16.3: Branched Hydrocarbons](#)

nonmetal

[1.2: Basic Definitions](#)

nonpolar bond

[9.5: Other Aspects of Covalent Bonds](#)

nonpolar covalent

[9.5: Other Aspects of Covalent Bonds](#)

nonpolar covalent bond

[9.5: Other Aspects of Covalent Bonds](#)

normal boiling point

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

Notation

[2.2: Expressing Numbers](#)

nuclear energy

[15.6: Nuclear Energy](#)

nuclear equation

[15.2: Radioactivity](#)

Nuclear Reactor

[15.6: Nuclear Energy](#)

O

octet rule

[9.3: Electron Transfer - Ionic Bonds](#)

[9.6: Violations of the Octet Rule](#)

organic compounds

[16.3: Branched Hydrocarbons](#)

osmosis

[11.6: Colligative Properties of Solutions](#)

osmotic pressure

[11.6: Colligative Properties of Solutions](#)

oxidation

[14.2: Oxidation-Reduction Reactions](#)

oxidation numbers

[14.2: Oxidation-Reduction Reactions](#)

P

p block

[8.5: Electronic Structure and the Periodic Table](#)

parent isotope

[15.2: Radioactivity](#)

partial pressures

[6.7: Gas Mixtures](#)

Pauli exclusion principle

[8.4: Organization of Electrons in Atoms](#)

percent yields

[5.6: Yields](#)

percentage composition by mass

[11.3: Quantitative Units of Concentration](#)

periodic table

[8.5: Electronic Structure and the Periodic Table](#)

[8.6: Periodic Trends](#)

periodic trends

[8.6: Periodic Trends](#)

pH

[12.7: The pH Scale](#)

phase

[1.2: Basic Definitions](#)

[10.2: Intermolecular Forces](#)

phase change

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

phase to

[10.2: Intermolecular Forces](#)

phase transitions

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

Physical change

[1.2: Basic Definitions](#)

physical properties

[1.2: Basic Definitions](#)

polar bond

[9.5: Other Aspects of Covalent Bonds](#)

polar covalent

[9.5: Other Aspects of Covalent Bonds](#)

polar covalent bond

[9.5: Other Aspects of Covalent Bonds](#)

polyatomic ions

[3.5: Ions and Ionic Compounds](#)

polymer

[16.7: Polymers](#)

polymerization

[16.7: Polymers](#)

precipitate

[4.3: Types of Chemical Reactions - Single and Double Replacement Reactions](#)

precipitation reaction

[4.3: Types of Chemical Reactions - Single and Double Replacement Reactions](#)

prefixes

[2.3: Expressing Units](#)

pressure

[6.3: Pressure](#)

[6.4: Gas Laws](#)

[7.3: Work and Heat](#)

primary batteries

[14.4: Applications of Redox Reactions - Voltaic Cells](#)

principal quantum number

[8.3: Quantum Numbers for Electrons](#)

principal quantum number(

[8.3: Quantum Numbers for Electrons](#)

products

[4.2: The Chemical Equation](#)

proton

[3.2: Atomic Theory](#)

Q

quadratic equation
 13.5: Calculating Equilibrium Constant Values
 qualitative
 11.2: Definitions
 quantitative
 11.2: Definitions
 quantized
 8.3: Quantum Numbers for Electrons
 quantum number
 8.3: Quantum Numbers for Electrons
 quantum numbers
 8.3: Quantum Numbers for Electrons

R

radioactive dating
 15.5: Uses of Radioactive Isotopes
 radioactive decay
 15.2: Radioactivity
 Radioactive Elements
 15.3: Half-Life
 Radioactive Isotopes
 15.5: Uses of Radioactive Isotopes
 radioactive processes
 15.3: Half-Life
 radioactivity
 15.2: Radioactivity
 15.5: Uses of Radioactive Isotopes
 radioactivity units
 15.4: Units of Radioactivity
 Raoult's law
 11.7: Colligative Properties of Ionic Solutes
 Raoult's law
 11.6: Colligative Properties of Solutions
 reactants
 4.2: The Chemical Equation
 Redox
 14.2: Oxidation-Reduction Reactions
 redox reaction
 14.2: Oxidation-Reduction Reactions
 redox reactions
 14.2: Oxidation-Reduction Reactions
 14.3: Balancing Redox Reactions
 reduction
 14.2: Oxidation-Reduction Reactions
 respiration
 6.6: The Ideal Gas Law and Some Applications
 ribonucleic acid
 16.7: Polymers
 RNA
 16.7: Polymers

S

s block
 8.5: Electronic Structure and the Periodic Table
 salt
 4.6: Neutralization Reactions
 12.2: Arrhenius Acids and Bases
 salt bridge
 14.4: Applications of Redox Reactions - Voltaic Cells
 saturated
 16.2: Hydrocarbons

saturated hydrocarbons
 16.2: Hydrocarbons
 scientific method
 1.3: Chemistry as a Science
 scientific notation
 2.2: Expressing Numbers
 Second ionization energy
 8.6: Periodic Trends
 secondary batteries
 14.4: Applications of Redox Reactions - Voltaic Cells
 semimetals
 1.2: Basic Definitions
 semipermeable membrane
 11.6: Colligative Properties of Solutions
 SI units
 2.3: Expressing Units
 significant figures
 2.4: Significant Figures
 Silicones
 16.7: Polymers
 simple acid
 3.6: Acids
 simple gas laws
 6.5: Other Gas Laws
 simple molecules
 9.7: Molecular Shapes
 single bond
 9.4: Covalent Bonds
 solid
 10.5: Solids
 solidification
 10.3: Phase Transitions - Melting, Boiling, and Subliming
 solids
 10.5: Solids
 solubility
 11.2: Definitions
 solubility rules
 4.3: Types of Chemical Reactions - Single and Double Replacement Reactions
 solute
 11.2: Definitions
 solutions
 11.6: Colligative Properties of Solutions
 solvent
 11.2: Definitions
 specific heat
 7.3: Work and Heat
 specific heat capacity
 7.3: Work and Heat
 spectra
 8.3: Quantum Numbers for Electrons
 spin
 8.3: Quantum Numbers for Electrons
 spin quantum number
 8.3: Quantum Numbers for Electrons
 spontaneous fission
 15.2: Radioactivity
 Standard Notation
 2.2: Expressing Numbers
 standard reduction potentials
 14.4: Applications of Redox Reactions - Voltaic Cells

standard state
 7.7: Formation Reactions
 standard states
 7.7: Formation Reactions
 standard temperature and pressure
 6.6: The Ideal Gas Law and Some Applications
 state
 1.2: Basic Definitions
 static
 12.3: Brønsted-Lowry Acids and Bases
 stock solution
 11.4: Dilutions and Concentrations
 stoichiometry
 5.2: Stoichiometry
 6.6: The Ideal Gas Law and Some Applications
 7.5: Stoichiometry Calculations Using Enthalpy
 stoichiometry problems
 6.6: The Ideal Gas Law and Some Applications
 STP
 6.6: The Ideal Gas Law and Some Applications
 strong acid
 12.5: Strong and Weak Acids and Bases and their Salts
 structural formulas
 16.2: Hydrocarbons
 sublimation
 10.2: Intermolecular Forces
 10.3: Phase Transitions - Melting, Boiling, and Subliming
 Subliming
 10.3: Phase Transitions - Melting, Boiling, and Subliming
 subshell
 8.5: Electronic Structure and the Periodic Table
 substance
 1.2: Basic Definitions
 Substances
 10.2: Intermolecular Forces
 substituents
 16.3: Branched Hydrocarbons
 supersaturated
 11.2: Definitions
 surface tension
 10.4: Properties of Liquids
 surrounding atoms
 9.4: Covalent Bonds
 system
 7.2: Energy

T

temperature
 2.6: Other Units - Temperature and Density
 6.4: Gas Laws
 tension
 10.4: Properties of Liquids
 theoretical yields
 5.6: Yields
 thermite reaction
 7.5: Stoichiometry Calculations Using Enthalpy
 thermochemical data
 7.7: Formation Reactions
 thermochemical equation
 7.4: Enthalpy and Chemical Reactions
 thermochemical equations
 7.5: Stoichiometry Calculations Using Enthalpy

thiol

[16.6: Other Functional Groups](#)

Third Ionization Energy

[8.6: Periodic Trends](#)

titrant

[12.4: Acid-Base Titrations](#)

titration

[12.4: Acid-Base Titrations](#)

titration experiment

[12.4: Acid-Base Titrations](#)

torr

[6.3: Pressure](#)

tracer

[15.5: Uses of Radioactive Isotopes](#)

triple bond

[9.4: Covalent Bonds](#)

U

u

[3.4: Masses of Atoms and Molecules](#)

units

[2.3: Expressing Units](#)

[6.3: Pressure](#)

[11.5: Concentrations as Conversion Factors](#)

unsaturated

[11.2: Definitions](#)

[16.2: Hydrocarbons](#)

unsaturated hydrocarbons

[16.2: Hydrocarbons](#)

V

valence electrons

[8.5: Electronic Structure and the Periodic Table](#)

Valence Shell

[9.4: Covalent Bonds](#)

Valence Shell Electron Pair Repulsion

[9.7: Molecular Shapes](#)

van't Hoff factor

[11.7: Colligative Properties of Ionic Solutes](#)

vapor

[10.4: Properties of Liquids](#)

vapor pressure

[6.7: Gas Mixtures](#)

[10.4: Properties of Liquids](#)

[11.6: Colligative Properties of Solutions](#)

[11.7: Colligative Properties of Ionic Solutes](#)

vapor pressure depression

[11.6: Colligative Properties of Solutions](#)

[11.7: Colligative Properties of Ionic Solutes](#)

vapor pressure lowering

[11.6: Colligative Properties of Solutions](#)

vaporization

[10.3: Phase Transitions - Melting, Boiling, and Subliming](#)

Voltage

[14.4: Applications of Redox Reactions - Voltaic Cells](#)

voltaic cell

[14.4: Applications of Redox Reactions - Voltaic Cells](#)

volume

[7.3: Work and Heat](#)

VSEPR

[9.7: Molecular Shapes](#)

W

wavelength

[8.2: Light](#)

weak acid

[12.5: Strong and Weak Acids and Bases and their Salts](#)

[13.6: Some Special Types of Equilibria](#)

weak acids

[13.6: Some Special Types of Equilibria](#)

weak base

[12.5: Strong and Weak Acids and Bases and their Salts](#)

weighted average

[3.4: Masses of Atoms and Molecules](#)

work

[7.3: Work and Heat](#)

Y

Yields

[5.6: Yields](#)